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10/608,495	06/30/2003	Stefaan Jozef De Cnodder	Q76292	8654

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EXAMINER
CHOU, ALBERT T

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/608,495

Applicant(s)

DE CNODDER ET AL.

Examiner

Albert T. Chou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 July 2007 for the amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 6 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendment filed on July 16, 2007.
 - Claims 1-19 are pending in the application.
 - Claims 1-4 and 7-19 are rejected under 35 U.S.C. 112, first paragraph.
 - Claim 11 is rejected under 35 U.S.C. 112, second paragraph.
 - Claims 1-4, 7-9 and 12-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over "A Method for MPLS LSP Fast-Reroute Using RSVP Detours" by Gan et al., IETF, Internet Draft, draft-gan-fast-reroute-00.txt, April 10, 2001.
 - Claims 5 and 6 are allowed

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 and 7-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Claims 1, 7, 8, 10, 11, 14, 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, i.e. "...said *Path_Tear Message* should be forwarded towards a downstream-located router without waiting for a predetermined timeout period", which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Although Applicants mentioning that "*in case of a failure, the Path_Tear Message will never arrive over the Main LSP and it has to wait for the above-mentioned long timeout of typically 1 to 2 minutes*" or *timeout of 1 to 2 minutes*" [see **Abstract, Brief Summary**] and that appearing to relate to the prior art, nowhere "a predetermined timeout period" can be found in Applicants' Specification. Furthermore, the "timeout of typically 1 to 2 minutes" appears to be an empirical or variable time value learned from the prior art and, thus, it cannot be "predetermined".

Claims 2-4, 15, 18 and 19 depend from claim 1, and claims 9, 12 and 13 depend from claim 7. Thus, claims 2-4, 9, 12, 13, 15, 18 and 19 are rejected on the same basis of rejection as claims 1 and 7.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation, "*wherein said receiving router transmits, towards an upstream-located router, a Reserved Tear Message including a said tag, wherein said upstream-located router transmits said Reserved Tear Message towards a downstream-located router*", which is in conflict with Applicants' Specification.

On page 7, lines 19-23, of Applicants' Specification, it appears that the receiving router may send an Rsev_Tear Message towards an upstream router. However, nowhere in the specification points out said upstream router may transmit said Resv_Tear Message towards a downstream-located router, i.e. the receiving router in this instance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-9 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over "A Method for MPLS LSP Fast-Reroute Using RSVP Detours" by Gan et al., IETF, Internet Draft, draft-gan-fast-reroute-00.txt, April 10, 2001 (hereinafter "Gan").

Regarding claim 1, Gan teaches a method to release a Label Switched Path (LSP) established between linked routers of a telecommunication network via a Path_Tear Message [**Sec. 1, Introduction; page 1 – page 2, lines 1-24**], the method comprising:

linking said routers in cascade according to a main path [**Fig. 1; page 3, lines 1-19**];

linking said routers in another order according to at least one detour path [**Fig. 1; page 3, lines 1-19**]; and

releasing at least some of the linked routers via said Path_Tear_Message [**Abstract, Sec. 1, Introduction; page 1 – page 2, lines 1-24**Fig. 1; page 3, lines 1-19],

wherein said Path_Tear Message comprising information indicating, to the router receiving said Path_Tear Message, whether said Path_Tear Message should be forwarded towards a downstream-located router without waiting for a predetermined timeout period [**Title: "A Method for MPLS LSP Fast-Reroute ...", Abstract: an LSP can quickly and automatically repair itself; i.e. the method "acts" immediately**

without waiting for or using a timer to set a predetermined timeout period; pp. 1 & pp. 10, lines 16-23].

Gan does not expressly teach whether said Path_Tear Message includes a tag.

However, It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that in RSVP-TE operation, a Path_Tear message, by itself, is a signal, an indication, or a tag indicating that a path along a node receiving the Path_Tear message is going down, and, therefore the receiving node should immediately forward the Path_Tear message toward its downstream router for preparation of tearing down the path.

The motivation for using Path_Tear message itself as a signal, an indication, or a tag would be to simplify the implementation of Path_Tear message and to quickly enable a detour node, without checking extra indicators, to propagate to both main and detour LSP's before it tears down both the main and the detour LSP's.

Regarding claim 2, Gan teaches the release method, wherein said Path_Tear Message is received, in the receiving router, via said detour path linking an upstream-located router to said receiving router **[Fig. 1, Sec. 2 Operation Overview, page 2 – page 3, line 19, page 10, lines 16-23].**

Regarding claims 3 and 8, Gan teaches the release method, wherein said tag indicates through which of said main path or said detour path or both, starting from the

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receiving router, said Path_Tear Message should be immediately forwarded towards said downstream-located router **[Fig. 1, Sec. 2 Operation Overview, page 2 – page 3, line 19, page 10, lines 16-23]**.

Regarding claims 4 and 9, Gan teaches said releasing comprises releasing the Label Switched Paths (LSP) arriving at this receiving router from upstream-located routers via said main path and via said detour path linking said upstream-located routers and said receiving router **[Fig. 1, Sec. 2 Operation Overview, page 2 – page 3, line 19, page 10, lines 16-23]**.

Regarding claims 7, 14 and 16, Gan teaches a telecommunication network and a system, comprising:

a plurality of routers interconnected and a plurality of links interconnecting the plurality of routers, where Label Switched Paths (LSP) are established using said plurality of links **[Sec. 1, Introduction; page 1 – page 2, lines 1-24]**,

wherein said routers are linked in cascade according to a main path and are linked in another order according to at least one detour path **[Fig. 1; page 3, lines 1-19]**,

wherein said routers transmit a Path_Tear Message towards downstream-located routers, said Path_Tear Message indicating that a Label Switched Path (LSP) has to be released **[page 10, lines 16-23]**,

wherein the router transmitting said Path_Tear Message adds to said Path-Tear Message Information indicating **[page 10, lines 16-17]**, to the router receiving said Path_Tear Message, whether said Path_Tear Message should be forwarded towards a downstream-located router without waiting a predetermined timeout period **[Title: "A Method for MPLS LSP Fast-Reroute ...", Abstract: an LSP can quickly and automatically repair itself; i.e. the method "acts" immediately without waiting for or using a timer to set a predetermined timeout period; pp. 1 & pp. 10, lines 16-23]**,

wherein the receiving router detects said tag in said received Path_Tear Message, releases each Label Switched Path and forwards said Path_Tear Message towards said downstream-located router without waiting the predetermined timeout period **[Title: "A Method for MPLS LSP Fast-Reroute ...", Abstract: an LSP can quickly and automatically repair itself; i.e. the method "acts" immediately without waiting for or using a timer to set a predetermined timeout period; pp. 1 & pp. 10, lines 16-23]**.

Can does not expressly teach whether said Path_Tear Message includes a tag.

However, It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that in RSVP-TE operation, a Path_Tear message, by itself, is a signal, an indication, or a tag indicating that a path along a node receiving the Path_Tear message is going down, and, therefore the receiving node should immediately forward the Path_Tear message toward its downstream router for preparation of tearing down the path.

The motivation for using Path_Tear message itself as a signal, an indication, or a tag would be to simplify the implementation of Path_Tear message and to quickly enable a detour node, without checking extra indicators, to propagate to both main and detour LSP's before it tears down both the main and the detour LSP's.

Regarding claim 12, Gan teaches both said main path and at least one detour path arrive at said receiving router **[Fig. 1; page 3, lines 1-19]**.

Regarding claim 13, Gan teaches said telecommunication network is a Multi-Protocol Label Switching telecommunication network **[Title: A Method for MPLS For Fast-Route Using RSVP Detours; page 1, line 1]**.

Regarding claims 15 and 17, Gan teaches said releasing comprises releasing without waiting for the predetermined time out period, each Label Switched Path indicated by said tag **[Title: "A Method for MPLS LSP Fast-Reroute ...", Abstract: an LSP can quickly and automatically repair itself; i.e. the method "acts" immediately without waiting for or using a timer to set a predetermined timeout period; pp. 1 & pp. 10, lines 16-23]**.

Allowable Subject Matter

5. Claims 5 and 6 are allowed

Response to Remarks

6. Applicant's remarks filed on July 16, 2007 regarding the rejection of claims 1-4, 7-9 and 12-14 in the application have been fully considered but they are not persuasive.

Applicants state, in the first paragraph of Applicants' REMARKS, "*By this Amendment, Applicant editorially amends claims 1-14. The amendments to claims 1-14 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents*". Examiner respectfully disagrees with Applicants' statement.

Specifically, the addition and the modification to claim 1, for examples, "releasing at least some of the linked routers via said Path Tear Message", "wherein said Path_Tear Message comprising information and a tag", or "...without waiting for a predetermined timeout period", etc., do narrow or change the scope of the claim 1 limitations. For claims 1, 7, 8, 10, 11, 14, 16 and 17, please also see above **Claim Rejection 35 U.S.C. 112** first paragraph rejection.

Regarding claim 1, Applicants argue inter alia in Gan that if a merging router receives a PathTear message via only one path, it must wait for a predetermined period of time before forwarding the message downward and that there is no disclosure or suggestion of forwarding the message without the predetermined timeout period.

Examiner respectfully disagrees Applicants' argument in these aspects since there is no single evidence or need in Gan that the method must wait for a predetermined period of time before forwarding the message downward. On the contrary, Gan's disclosures, for examples, "A Method for MPLS LSP Fast-Route Using RSVP Detours" **[the Title]**, "an LSP can quickly and automatically repair itself" **[Abstract]**, "the node should trigger RSVP to establish a detour path immediately" **[Sec. 4.1, page 9]**, etc, all indicate that a method of fast, quick or immediate message forwarding without waiting a predetermined timeout period.

Examiner further disagrees with Applicants' argument that Gan does not suggest a PathTear message including information and a tag, as set forth in claim 1.

As recited under 35 U.S.C. 103(a) rejection to claim 1, It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that in RSVP-TE operation, a Path_Tear message, by itself, is a signal, an indication, or a tag indicating that a path along a node receiving the Path_Tear message is going down, and, therefore the receiving node should immediately forward the Path_Tear message toward its downstream router for preparation of tearing down the path.

Thus, Gan's disclosures meet each limitation set forth in claim 1.

Claims 7 and 14 recite the features similar to the features argued with respect to claim 1, and, thus, are rejected based on the same reasons of rejection as to claim 1.

Claims 2-4, 8, 9, 12 and 13 depend from claims 1 and 7, respectively. Examiner maintains the same reason of rejection as recited in above ***Claim Rejections - 35 USC § 103.***

It is concluded that Gan's reference continues to read on claims 1-4, 7-9 and 12-14 through obviousness. Therefore, claims 1-4, 7-9 and 12-14 are not allowable over the reference.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert T. Chou whose telephone number is 571-272-6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham, can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Albert T. Chou
August 6, 2007

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CHI PHAM
SUPERVISORY PATENT EXAMINER

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